

10
CLAIMS

What is claimed is:

1. A mobile station comprising:

a transceiver comprising a transmitter circuit having a transmit RF filter that passes a transmit band of frequencies that is partitioned into transmit frequency channels and a receiver circuit having a receiver RF filter that passes a receive band of frequencies that is partitioned into receiver frequency channels;

an antenna coupled to an output of said transmitter circuit and to an input of said receiver circuit; and

circuitry, responsive to a currently selected RF channel, for compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies.

2. A mobile station as in claim 1, wherein said compensating circuitry compensates for RF filter operation in a transmit RF channel that is nearest to said band of receive RF frequencies.

3. A mobile station as in claim 1, wherein said compensating circuitry compensates for RF filter operation in a receive RF channel that is nearest to said band of transmit RF frequencies.

4. A mobile station as in claim 1, wherein said compensation circuitry is comprised at least one of digital logic and a digital signal processor (DSP) device.

5. A mobile station as in claim 1, wherein said compensation circuitry is comprised a finite impulse response (FIR) device.

6. A mobile station as in claim 1, where said transmit range of frequencies is about 60MHz, where said receive range of frequencies is about 60MHz, and where said transmit range of frequencies and said receive range of frequencies are separated by about 20MHz.

7. A mobile station as in claim 1, where said transmit range of frequencies is about 60MHz that is partitioned into 12 frequency channels, where said receive range of frequencies is about 60MHz that is partitioned into 12 frequency channels, and where a highest frequency channel in said transmit range of frequencies and a lowest frequency channel in said receive range of frequencies are separated by about 20MHz.

8. A method for operating a mobile station comprising:

providing the mobile station with a transceiver having a transmitter circuit having a transmit RF filter that passes a transmit band of frequencies that is partitioned into transmit frequency channels and a receiver circuit having a receiver RF filter that passes a receive band of frequencies that is partitioned into receiver frequency channels;

coupling an antenna to an output of said transmitter circuit and to an input of said receiver circuit; and

responsive to a currently selected RF channel, compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies.

9. A method as in claim 8, wherein said step of compensating compensates for RF filter operation in a transmit RF channel that is nearest to said band of receive RF frequencies.

10. A method as in claim 8, wherein said step of compensating compensates for RF filter operation in a receive RF channel that is nearest to said band of transmit RF frequencies.

11. A method as in claim 8, wherein said step of compensating comprises operating at least one of digital logic and a digital signal processor (DSP) device.

12. A method as in claim 8, wherein said step of compensating comprises operating a finite impulse response (FIR) device.

13. A method as in claim 8, wherein said transmit range of frequencies is about 60MHz, where said receive range of frequencies is about 60MHz, and where said transmit range of frequencies

and said receive range of frequencies are separated by about 20MHz.

14. A method as in claim 8, wherein said transmit range of frequencies is about 60MHz that is partitioned into 12 frequency channels, where said receive range of frequencies is about 60MHz that is partitioned into 12 frequency channels, and where a highest frequency channel in said transmit range of frequencies and a lowest frequency channel in said receive range of frequencies are separated by about 20MHz.